





PUBLIC REPORT CARD 2001 River Protection Project

MISSION

The U.S. Department of Energy's Office of River Protection will retrieve and treat Hanford's tank waste and close the tank farms to protect the Columbia River



LETTER FROM HARRY BOSTON MANAGER, OFFICE OF RIVER PROTECTION





March 2002

To Hanford Stakeholders and Members of the Public:

This report card is the second in an annual series focusing on the River Protection Project. The mission of the River Protection Project is to retrieve and treat Hanford tank waste and close the tanks to protect public health and the Columbia River. Key to this mission, the River Protection Project will construct and operate the largest radiochemical processing facility in the world (the Waste Treatment Plant) to complete the cleanup of Hanford's highly radioactive tank waste. It is with your taxpayer dollars that we are undertaking this project and we have the responsibility to be accountable to you regarding the progress we are making. This report card is our public track record for the River Protection Project for 2001.

The magnitude and complexity of cleaning up the 177 large underground storage tanks at Hanford is daunting. The waste in these tanks is the result of 50 years of plutonium production for national defense. These tanks contain more than 53 million gallons of highly radioactive and hazardous chemical waste and 67 of the older tanks have leaked approximately one million gallons into the ground. The Columbia River, which is less than seven miles away, is threatened both as a national monument and as the economic lifeblood of the region. This risk is unacceptable and, therefore, it is imperative that the River Protection Project succeeds with the cleanup of Hanford's tanks.

In order to ensure the success of the project, I am holding every member of the River Protection Project team accountable for delivering on commitments tied to real cleanup progress. The project's two major contractors, CH2M HILL Hanford Group, Inc., and Bechtel National, Inc., have new contracts with specific financial incentives to achieve well-defined goals for project cost and schedule. The intent is to promote the best use of commercial practices to assure smarter, more cost-effective use of taxpayer dollars.

I am also working to complete the cleanup of the tanks sooner. In 2001, we resolved the remaining safety issues associated with 60 "high priority" tanks that posed the most significant danger to the environment; we removed more liquid from single-shell tanks with the potential to leak; we completed the infrastructure (power, water, and roads) for the Waste Treatment Plant \$9 million under budget; and, we began to prepare the 65-acre site for the start of construction of the Waste Treatment Plant. Our accomplishments for 2001, while significant, are not sufficient by themselves to complete the cleanup of the tanks sooner. We must do more.

Most important, we must keep making progress with the Waste Treatment Plant and begin the start of construction of this facility in 2002. This is my personal priority and a promise I have made to our regulators and to the public. The Waste Treatment Plant is the cornerstone of our cleanup strategy as it is the solution for dealing with the most hazardous radioactive tank waste at Hanford. We also must start to close low risk tanks now. And, we must choose the most cost-effective, existing technologies for addressing the remaining tanks – technologies that are protective of workers, public health, and the environment and will optimize the use of the Waste Treatment Plant. It is this three-part strategy that I am committed to that, when implemented, will accelerate both the reduction of risk and the long-term protection of the public and the environment.

We will be diligent in keeping our commitments and we invite Hanford stakeholders and members of the public to track our accountability towards meeting those commitments. It is only through visible accomplishments that lead to progress that we can earn the public's trust and confidence.

THE OFFICE OF RIVER PROTECTION

Background

As directed by the U.S. Congress, the Department of Energy's Office of River Protection was established as an independent office at the Hanford Site in 1998.



The exclusive focus of the Office of River Protection is to manage the retrieval, treatment, and disposal of Hanford tank waste – the Department of Energy's largest and most complex environmental cleanup

Hanford Site Location Map

project. While initially authorized for five years, Congress recently extended the Office of River Protection until 2010.

Cleanup Challenge

The Hanford Site, located in southeastern Washington State, has 177 underground single-shell and double-shell tanks which contain 53 million gallons of chemically complex, radioactive waste. The majority of the tanks (149 of the 177)

are single-shell tanks which are more than 30 years beyond their design life. Sixty-seven of the single-shell



tanks have leaked about one million gallons of waste into the ground. The tanks are located just seven miles from the Columbia River. More than

60% of the nation's radioactive tank waste resides at Hanford.

Vitrification: The Solution

The Office of River Protection's plan to solve cleanup challenges posed by the tanks is to remove the waste from the tanks, vitrify the waste (turn it into stable glass

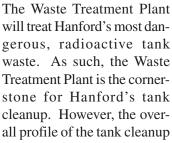
logs) for long-term storage or disposal, and close the tank farms. To this end, the River Protection Project team will build and operate the largest radiochemical processing facility in the world (the Waste



Treatment Plant). Construction of the plant will begin in

2002 and vitrification of tank waste will begin in 2007.

The Future



project is long, expensive, and requires extensive capital

funding for almost 50 years. It is the goal of the Office of River Protection to complete cleanup more quickly, safely, and cost-effectively by appropriately matching treatment tech-



nologies with the level of risk posed by the tanks.

"There is no question that the Office of River Protection structure has worked and merits not only continuation, but I believe examination for how it could be applied to the nation's other cleanup challenges." - Congressman Doc Hastings, (R) Washington

THE RIVER PROTECTION PROJECT TEAM

The Office of River Protection manages tank waste cleanup as an integrated waste treatment operation with materials, processes, and products.

Materials



Tank Waste

Processes

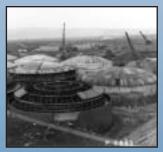


Waste Treatment Plant

Products



Containerized Waste Product



Tank Farm Construction 1940's



Glass Waste Form



Waste Product Storage

- Operate and maintain tank farms
- Retrieve waste
- Deliver waste feed
- Pretreat waste
- Process high-level waste to glass
- Process low-activity waste to glass
- Dispose of immobilized waste
- Close tank farms

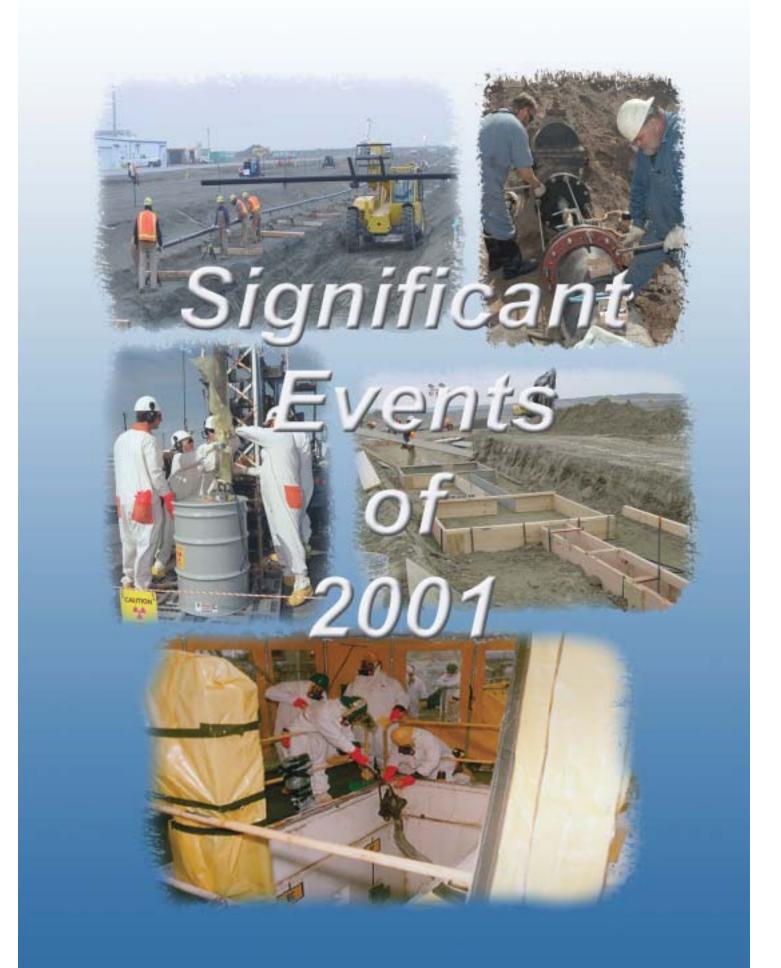






The Office of River Protection

Manage Contracts, Safety Oversight, Integration



HIGH PRIORITY TANK SAFETY ISSUES RESOLVED

CONTEXT

In the early 1990's a Congressional Watch List, developed by then Congressman Ron Wyden of Oregon, was created to call out the most dangerous of the 177 large underground storage tanks at the Hanford Site. A total of 60 tanks were added to the Watch List. Tanks were listed because their radioactive and chemically hazardous contents posed safety concerns including high volatility, high heat concerns, and/ or flammable gas problems. The infamous burping tank, SY-101, was among the listed tanks and was once the most critical safety issue within the Department of Energy.

The removal of all 60 tanks from the Watch List was possible through the resolution of significant safety issues that had plagued these tanks for a decade. The formal closure of the Watch List was noted by a landmark event held in Richland, Washington, on August 17, 2001.



Congressman Doc Hastings (WA), Harry Boston, and Senator Ron Wyden (OR), at the Watch List Press Conference on August 17, 2001

STATUS OF WATCH LIST TANKS



SIGNIFICANCE

- Resolves a broad spectrum of safety and environmental problems that posed a threat to the public and the environment
- ♦ Infamous burping tank, SY-101, now back in useful service
- ♦ Allows other existing double-shell tanks to be put back into service

"Today, I'm proud to see the Watch List become extinct. The hard work of the Department of Energy and many others has helped to protect the people of Hanford and communities downstream." - Senator Ron Wyden (D) Oregon

WASTE TREATMENT PLANT INFRASTRUCTURE COMPLETED EARLY AND UNDER BUDGET

CONTEXT

There is a significant amount of infrastructure (power, water, and roads) required before the Waste Treatment Plant can be built. In August, 2001, the River Protection Project, through its tank farm contractor CH2M HILL Hanford Group, Inc., completed the necessary infrastructure more than one year ahead of schedule and \$9 million under budget.



Substation foundation being poured

Infrastructure accomplishments on the tank farm site, and leading up to the perimeter of the 65-acre construction site upon which the Waste Treatment Plant will be built, included the following:

- ◆ Installation of a 62.5 million volt amp electrical substation, with 230 kilovolt transmission lines, which is equivalent to a system capable of providing power to 6000 homes
- Installation of three miles of pipeline for delivering water for drinking, fire protection and waste vitrification operation purposes
- ♦ Construction of roadways encircling the 65-acre Waste Treatment Plant site

SIGNIFICANCE

- Commercial contract approach allowed expedited work which resulted in work being completed more than one year ahead of schedule
- Work completed \$9 million under budget and saved taxpayer dollars
- ♦ Infrastructure is in place for building the Waste Treatment Plant



Electrical Substation for the Waste Treatment Plant

"The federal government has made a promise to the people of Washington State, to the Northwest, and to the country to clean up Hanford. It is essential to the quality of the Northwest's water and environment, as well as our public safety. Beginning construction of the Waste Treatment Plant is a step in the right direction. I will continue to work hard to see that this project is completed." - Senator Maria Cantwell, (D) Washington

PREPARING TO BUILD THE WASTE TREATMENT PLANT

CONTEXT

In December 2000, Bechtel National, Inc., was awarded a four billion dollar, ten-year contract to design, build and commission the Waste Treatment Plant. The goal is to deliver the best possible plant for the lowest total cost, thereby maximizing the return on the taxpayer's investment.

In the one year since the contract was awarded, Bechtel National, Inc., has made significant progress in preparing the 65-acre site for start of construction (pouring of concrete) which will begin in 2002.

Progress within the perimeter of the 65-acre construction site upon which the Waste Treatment Plant will be built includes:

- Mobilized limited construction at the project site and began initial excavation work
- Installed necessary sewers, electrical utilities, and water lines



Installing storm drains as part of limited construction activities



Groundwork preparation at the Waste Treatment Plant construction site

SIGNIFICANCE

- ♦ Site preparation is on schedule to support the start of construction of the Waste Treatment Plant in 2002
- ◆ Early site work supports the commitment to start waste treatment by 2007

"As we ask Americans to sacrifice for the War on Terrorism, we cannot forget the sacrifices made to win World War II and the Cold War. I will continue to do everything in my power to ensure the federal government meets its moral and legal obligations to clean up the waste at Hanford and honor the sacrifice of the men and women of the Tri-Cities." - Senator Patty Murray, (D) Washington

MORE LIQUID WASTE REMOVED FROM SINGLE-SHELLTANKS

CONTEXT

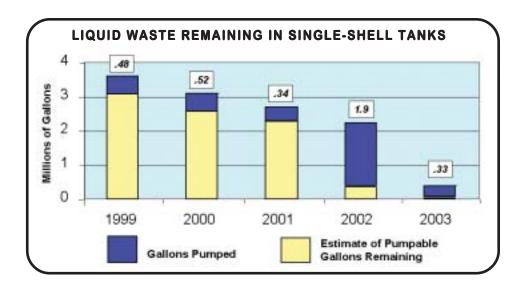
Sixty-seven of the 149 older single-shell tanks have leaked waste and contaminated the soil. While no single-shell tanks are leaking today, efforts continue to remove retrievable liquids out of older single-shell tanks into newer and safer double-shell tanks (interim stabilization). A total of 1.3 million gallons (out of approximately 3.6 million retrievable gallons) of liquid waste have been moved since 1998. Pumping of 129 of 149 single-shell tanks has been completed. In 2001 alone, the liquid content of four additional single-shell tanks, representing 340,000 gallons of retrievable liquid waste, was moved to double-shell tanks. Of the 20 single-shell tanks remaining in 1998, removal of retrievable waste has already started on 14 tanks. Pumping for all 20 tanks must be completed by October 2004.

SIGNIFICANCE

- ◆ Four additional single-shell tanks have been stabilized, thereby reducing further potential risk to the Columbia River
- ◆ Pumping is one year ahead of schedule and will be completed by 2004



Removing liquid waste from Hanford's older tanks



- "Emptying the tanks and stabilizing the waste is our highest priority at Hanford."
- Governor Gary Locke, Washington

PREPARING TO DELIVER WASTE TO THE WASTE TREATMENT PLANT

CONTEXT

The ability to safely, effectively, and efficiently deliver waste from double-shell tanks to the Waste Treatment Plant is key for completing the Hanford tank cleanup. In order to deliver the waste for treatment, mixer pumps must be installed in the tanks to blend the waste prior to transport, a dilution system must be in place to ensure that the tank waste is pumpable, pipe-in-pipe transfer lines must be installed to transport the waste from the tanks to the treatment plant, and waste transfer concrete pits must be ready to support moving the waste.

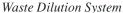
In 2001 significant accomplishments were made in the preparations for delivering the tank waste for treatment and included:

- ♦ Installation of two additional 300 HP mixer pumps
- ♦ Installation of the Waste Dilution System
- ♦ Installation of an additional 7,700 feet of waste transfer pipe to deliver the waste for treatment
- ♦ Upgrade of four waste transfer pits



SIGNIFICANCE

- Overall reliability and safety of the waste feed delivery system further improved
- Waste feed delivery system progress supports the commitment to start waste treatment by 2007





Waste transfer lines being installed to deliver tank waste to the Waste Treatment Plant

[&]quot;Preparing the waste feed delivery system is an essential step in getting ready to treat Hanford tank waste." - Ed Aromi, President of CH2M HILL, Hanford Group, Inc.

DELIVERING COMMERCIAL PERFORMANCE FOR TAXPAYER DOLLARS

CONTEXT

In December 2000, after a record setting, expedited eight-month process, the Department of Energy's Office of River Protection issued a ten-year, four billion dollar contract to Bechtel National, Inc., to build Hanford's Waste Treatment Plant. The contract provides Bechtel National, Inc., with specific financial incentives to achieve goals for project cost, schedule, and



operational performance. Specifically, Bechtel National, Inc., must deliver a facility that can be operated safely, reliably, and cost-effectively for more than 20 years by: 1) meeting or beating technical specifications for operations; 2) meeting or beating schedule targets; and 3) driving down cost with Bechtel National, Inc., and the Department of Energy sharing cost savings, 20% and 80%, respectively.



In January 2001, the Office of River Protection extended CH2M HILL Hanford Group, Inc's., contract to safely maintain and operate the tank farms and to complete its preparation for the

retrieval and delivery of tank waste to the Waste Treatment Plant. The five-year, 2.2 billion dollar contract specifically ties the amount of profit CH2M HILL Hanford Group, Inc., can earn by: 1) the successful completion of regulatory-driven project accomplishments that are aligned with the Waste Treatment Plant schedule; and 2) the completion of 2.5 billion dollars of workscope for 2.2 billion dollars.

SIGNIFICANCE

- ♦ Innovative contracts were designed to incentivize contractor performance while promoting the best use of commercial practices
- ♦ Contractors make profit when quality products are delivered on time and earn more profit if costs are reduced
- ◆ Taxpayer dollars will be used in a smarter, more cost-efficient manner to drive the cleanup of Hanford tank waste

"This extension of the contract with CH2M HILL Hanford Group, Inc., helps maintain critical momentum on this project and takes us another step closer to meeting our commitment to the people of the Pacific Northwest." - Bill Richardson, former Secretary of Energy

"Bechtel National, Inc., provides the Department of Energy the highest confidence of delivering a plant that works within budget and schedule." - Harry Boston, Manager, Office of River Protection

COMMITMENT FOR START OF CONSTRUCTION OF THE WASTE TREATMENT PLANT MISSED

CONTEXT

The Department of Energy was required, through commitments in the Tri-Party Agreement (TPA), to start construction of the Waste Treatment Plant by July 31, 2001. The TPA is the comprehensive cleanup and compliance agreement, signed by the Department of Energy, the U.S. Environmental Protection Agency, and the Washington State Department of Ecology, which sets the schedule for major accomplishments for the cleanup of the Hanford Site. The State of Washington began to fine the Department of Energy after the start of construction date was missed. The fines will continue to accumulate until the Waste Treatment Plant project is back on schedule.

The delay in the start of construction of the Waste Treatment Plant was a result of the Department of Energy's termination of its privatization approach and subsequent change in lead contractor (from British Nuclear Fuel Limited to Bechtel National, Inc.) to design, construct and operate the Waste Treatment Plant. While the changes to a more effective contract approach and new lead contractor initially have caused a one-year start of construction schedule delay, the schedule to begin vitrifying tank waste in 2007 remains on track.

A RECOVERY PLAN IS IN PLACE TO MEET THE COMMITMENT TO START TREATING WASTE IN 2007



TRI-PARTY AGREEMENT

SIGNIFICANCE

- Postponed start of construction of the Waste Treatment Plant from 2001 to 2002
- ♦ Plans are in place to ensure that the required start of waste treatment in 2007 is NOT delayed

"The federal government needs to fulfill its cleanup commitments just like anyone else. Hanford is one of the worst waste sites in the nation and the Department of Energy should set an example for responsibly cleaning up its mess." - Christine Gregoire, Attorney General, Washington State

"Our focus is on action and results, and that's the message we are sending with the fines. The penalties will end when we become convinced that treatment will get underway in 2007." - Tom Fitzsimmons, Director, Washington State Department of Ecology

SAFETY PERFORMANCE ISSUES AND IMPROVEMENTS

CONTEXT

The safety of the work conducted in the tank farms became an issue in 2001 as several minor events and near misses raised concerns about the safety culture. While weaknesses in the implementation of the Integrated Safety Management System (the Department of Energy's overall guideline for environmental, safety, and health practices) neither led to worker injuries nor unanticipated environmental releases, they did lead to increased Office of River Protection oversight and a renewed, rigorous focus on safety.

Areas identified as "marginal" safety performance included: 1) conduct of operations; 2) management systems; and 3) safety basis. While tank farms contractor CH2M HILL Hanford Group, Inc., initially responded slowly to the self-identified and Office of River Protection-identified safety issues, by the end of the year communication with the Office of River Protection improved considerably and credible training and process improvement plans were in place.

SIGNIFICANCE

- ♦ Early warning signs of weaknesses in the safety culture were addressed and became a blueprint for improvement
- Work continued, uninterrupted on tank farm operations, and without compromise to workers and environmental safety, while CH2M HILL Hanford Group, Inc., and the Department of Energy drove safety improvements



Tank farm workers following safety procedures in a tank pit

"Very thorough investigations are being conducted concerning safety issues. The Office of River Protection management digs into the problems, gets out into the field and examines the issues. They see first hand the risks employees face in their day-to-day work." - John Teskey, Director, Health and Safety for Hanford Atomic Metal Trades Council, and Steve Maki, Representative, Central Washington Trades Council Safety

BUILDING CONFIDENCE IN THE SAFETY OF THE WASTE TREATMENT PLANT

CONTEXT

The overall safety performance of Bechtel National, Inc., the Waste Treatment Plant contractor, was evaluated by the Office of River Protection as adequate to good in 2001. While the limited construction activities in the field that were undertaken proceeded safely and most safety inspections produced few findings, several areas were identified for improvements and focused primarily on initial safety documentation.



Preparing to work on underground utility installation, crews review the task



Using GPS Survey System equipment, workers lay-out underground utilities

The Office of Safety Regulation, a subdivision of the Office of River Protection, is responsible for regulating the radiological, nuclear, and process safety of the Waste Treatment Plant. The Office of Safety Regulation website at www.hanford.gov/osr makes safety regulatory decisions available to the public.

The Office of River Protection is committed to the success of the Waste Treatment Plant and to holding Bechtel National Inc., to a high degree of accountability regarding safety. As evidence to its commitment to safety, Bechtel National, Inc., has maintained an excellent safety record during its first year on the job.

SIGNIFICANCE

- ♦ The Office of Safety Regulation ensures the safety of the Waste Treatment Plant
- ♦ While Bechtel National, Inc., staffing ramped up from 600 to 1700 employees, work continued to be done safely (two million hours achieved without a lost time accident)

"The Bechtel team works together to ensure all integral parts of our construction mission are carried out in the most safe and efficient manner possible." - Ron Naventi, Project Manager and Senior Vice President, Bechtel National, Inc.

EFFECTIVE APPLICATIONS OF NEW TECHNOLOGIES

CONTEXT

The River Protection Project is applying new and better technologies to the cleanup of Hanford's tanks to reduce risk to workers, the public, and the environment, shorten the time to

complete important cleanup activities, and save taxpayer dollars. The following are two noteworthy examples:

- ♦ Pit Viper The Pit Viper technology is comprised of a remotely operated arm connected to a backhoe, a remote viewing system, and a control trailer. The system allows workers to remotely access process pits to install equipment or to make repairs. Pits contain waste transfer equipment such as valves, piping, connections, and pumps. Hanford's 177 underground tanks have approximately 600 pits and are one of the highest sources of worker exposure. Thirty-two pits are planned to be upgraded over the next several years.
- ♦ Hanford Cold Test Facility This facility, when completed in mid-2002, will contain a mockup of a million gallon Hanford Waste Tank. The Hanford Cold Test Facility will provide the opportunity to develop and demonstrate specialized equipment to be used in the cleanup of the tanks in a non-hazardous, non-radioactive environment prior to actual testing of the equipment in the field.



Pit Viper sleeve in tank C-104



Aerial view of the Hanford Cold Test Facility under construction

SIGNIFICANCE

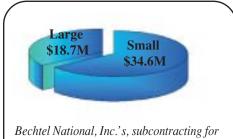
- ♦ The Pit Viper reduces worker exposure to hazardous and radioactive materials by as much as 75%
- ♦ The Hanford Cold Test Facility will allow workers to practice removing waste and inserting and replacing equipment in a safe environment allowing hands-on experience before operating with highly radioactive tank waste

"The Hanford Cold Test Facility is needed to ensure new technologies and cleanup systems work well before they're put in the highly radioactive and hazardous environment of a Hanford tank." - Rick Raymond, Vice President of Projects, CH2M HILL Hanford Group, Inc.

CREATING OPPORTUNITIES FOR SMALL BUSINESSES

CONTEXT

The Office of River Protection is committed to creating opportunities for small businesses and has established



Bechtel National, Inc.'s, subcontracting for December 2000 through September 2001

aggressive small business targets for its two major contractors, Bechtel National, Inc., and CH2M HILL Hanford Group, Inc. Both contractors have to meet specific small business subcontracting goals. Regional small businesses supply many services and products to the Hanford Site that range from engineering and architectural services, site security, contract estimators, office furniture, and safety supplies. Small business participation delivers better value to taxpayers and supports our national economy.

To aid in the creation of small business opportunities, on November 15, 2001, the Office of River Protection co-sponsored with the Tri-City Industrial Development Council (TRIDEC), a Small Business Vendor Symposium which attracted over 1,000 participants. The purpose of the symposium was to offer local businesses a chance to learn how to qualify to do Hanford-related work and an opportunity to meet with purchasing agents for Bechtel National, Inc., and CH2M HILL Hanford Group, Inc.



SIGNIFICANCE

- More than \$2.4 billion will be available for subcontracting through Bechtel National, Inc., with \$1.1 billion specifically targeted for small business (over 10 years)
- ♦ Approximately \$750 million will be available for subcontracting through CH2M HILL Hanford Group, Inc., with \$300 million specifically targeted for small business, given annual budgets meet required levels



Harry Boston speaks at the November 15, 2001, Small Business Symposium in Pasco, Washington

"The River Protection Project is committed to creating business opportunities for businesses in the Tri-Cities." - Dick Richter, President George A. Grant, Inc.



Governor Gary Locke, (D) Washington



Christine Gregoire, Attorney General, Washington State



Office of River Protection Staff



Tom Fitzsimmons, Director, Washington State Department of Ecology



Congressman Doc Hastings, (R) Washington, Senator Maria Cantwell, (D) Washington, Senator Patty Murray, (D) Washington, Harry Boston

COMMITMENTS AND CHALLENGES FOR 2002 AND BEYOND

The year 2001 marked a significant transition for the River Protection Project as it moved from *plans to progress*. For the future, however, the Office of River Protection must focus not only on maintaining the direction and momentum already established by the River Protection Project but on significantly improving both. The goal is to get to the long-term protection of worker and public health and the environment sooner. As such, the Office of River Protection makes the following priority commitments for fast tracking the River Protection Project mission in a risk-based and cost-effective manner:

- ♦ Protect worker and public health and the environment (Hold contractors accountable for safety performance)
- ♦ Deliver a Waste Treatment Plant that is on time and on budget (Start construction of the plant in 2002)
- ♦ Begin converting Hanford tank waste to glass in 2006 (One year ahead of schedule)
- ♦ Improve the Waste Treatment Plant capabilities to complete tank waste cleanup 20 YEARS EARLY

(Complete by 2028 versus 2048)

- ♦ Accelerate waste retrieval and tank closure TEN YEARS EARLY (Close first tanks by 2004)
- ♦ Demonstrate other technologies for treating low-risk Hanford tanks
 (Smart solutions to enable faster waste treatment)
- ♦ Deliver long-term environmental protection for \$20 BILLION LESS than currently planned

In order to meet these substantial challenges, sustained funding for the project in the future is pivotal. Without strong support from Congress and the public, the River Protection Project can not succeed.

"The Office of River Protection has overcome significant challenges in the last year. However, some of the greatest challenges will be in the coming year. To be successful, the Office of River Protection is going to have to pull rabbit after rabbit out of the hat." - Todd Martin, Informed Hanford Individual





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THE PROBLEM

- ♦ The Department of Energy's Hanford Site, located in southeastern Washington State, has 149 single-shell tanks and 28 double-shell tanks containing a total of 53 million gallons of chemically complex, high-level radioactive waste.
 - The single-shell tanks are 30 years beyond their design life and have already leaked approximately one million gallons of liquid waste into the ground.
 - The tanks are located just seven miles from the Columbia River, the economic lifeblood of the Pacific Northwest region.
- ♦ More than 60% of the nation's radioactive tank waste resides at Hanford.
- For more than a decade Hanford has struggled to bring on the waste treatment capability to safely treat and permanently dispose of the highly radioactive tank waste.

THE SOLUTION

- ♦ The Office of River Protection was established by the U.S. Congress in 1998 to complete the Hanford tank cleanup project.
- ♦ The Office of River Protection's plan is to remove the waste from the tanks, vitrify the waste (turn it into stable glass logs) for long-term storage or disposal, and close the tank farms.
- ♦ The River Protection Project team is comprised of the following:
 - Office of River Protection manages contracts, provides safety oversight, and provides overall project integration
 - **CH2M HILL Hanford Group, Inc.** operates and maintains the tank farms, retrieves the tank waste, delivers waste feed to the vitrification plant, disposes of the vitrified waste, and closes the tank farms
 - **Bechtel National, Inc.** designs and builds the Waste Treatment Plant to pretreat waste and to process high-level waste and low-activity waste into glass

THE RESULT

- ♦ Work is underway with significant progress made in 2001.
- Construction of the Waste Treatment Plant (first pour of concrete) will begin in 2002.
- The initial Waste Treatment Plant facilities will begin to treat the most highly radioactive waste by 2007.
- The plan to complete the tank cleanup project is in excess of \$50 billion over 50 years and this is unacceptable.
- ◆ The Office of River Protection is pursuing ways to complete the cleanup more quickly, safely, and cost-effectively.
- A plan is being implemented to complete waste treatment 20 years earlier and for \$20 billion less.



MAJOR ACCOMPLISHMENTS OF THE RIVER PROTECTION PROJECT IN 2001

♦ ALL TANKS REMOVED FROM THE WYDEN WATCH LIST AS SAFETY ISSUES RESOLVED

A broad spectrum of safety and environmental problems, posed by 60 of Hanford's most dangerous underground storage tanks, were resolved. The infamous burping tank, SY-101, is now back in useful service.

♦ ROADS, WATER, AND POWER INSTALLED ONE YEAR EARLY AND \$9 MILLION UNDER BUDGET TO SUPPORT THE WASTE TREATMENT PLANT

The installation of a 62.5 million volt amp electrical substation, three miles of pipeline, and roadways encircling the 65-acre Waste Treatment Plant site have been completed.

♦ SITE PREPARATION AND LIMITED CONSTRUCTION BEGAN FOR THE WASTE TREATMENT PLANT

Site preparation activities and the installation of necessary utilities are on schedule to ensure the start of construction of the Waste Treatment Plant (first pour of concrete) in 2002.

♦ PUMPING OF LIQUID WASTE FROM SINGLE-SHELL TANKS ONE YEAR AHEAD OF SCHEDULE

A total of 1.3 million gallons of radioactive liquid waste has been moved to safer double-shell tanks since 1998. Pumping must be completed by 2004.

♦ PREPARATIONS BEGAN FOR RETRIEVING WASTE FOR TREATMENT

Preparations included the installation of two mixer pumps, the Waste Dilution System, 7,700 feet of waste transfer pipe, and upgrades to four waste transfer pits.

♦ COMMERCIAL STANDARD CONTRACTS ISSUED TO SAVE TAXPAYER DOLLARS

Recently issued contracts with Bechtel National, Inc., and CH2M HILL Hanford Group, Inc., break from "business as usual" with the Department of Energy. The contracts directly link contractor profit to real progress on cleanup.

♦ NEW TECHNOLOGIES REDUCE WORKER EXPOSURE TO HAZARDS

New remote access technologies (Pit Viper) and tank mockups (Hanford Cold Test Facility) allow workers to work in safer environments.

♦ SMALL BUSINESSES TARGETED FOR MORE OPPORTUNITIES

Over \$1 billion will be available for subcontracting to small businesses over the next ten years.

roject.



This report was prepared for the U.S. Department of Energy's *Office of River Protection* by Nuvotec, Inc.

For additional copies of this report contact:
The Office of River Protection's Office of Communications (509) 376-4267
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